

## REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

At the outset, appreciation is expressed to Examiners Cook and Lee for the courtesies extending to the undersigned during the January 14, 2010 interview regarding this application. The substance of that interview is reflected in the following remarks.

Independent Claim 16 is rejected as being unpatentable over the previously recited de Paula publication (hereinafter de Paula) in view of International Application Publication No. WO95/34917, hereinafter Lee.

De Paula discloses a high-sensitivity optical microphone in which a pellicle is glued to a glass fiber and positioned over the duct of a photoacoustic cell. A probe beam and a photodetector are arranged such that the probe beam is reflected by the pellicle and strikes the center of the photodetector to detect vibration of the photodetector.

The Official Action correctly notes that de Paula does not disclose a door positioned in an aperture and at least on one side mounted so that an inner periphery of the aperture surrounds the door and a slit exists between the door and the inner periphery of the aperture. The Official Action goes on to take the position that Lee cures the above noted deficiencies in de Paula. Applicants disagree.

Lee discloses a cantilever pressure transducer in which a transducer 46 mounted to the base of the cantilever 34 detects the bending, i.e., the change of shape, of the cantilever 34. The Official Action takes the position that Lee's cantilever pressure transducer constitutes a door positioned in an aperture and at least on one

side mounted so that an inner periphery of the aperture surrounds the door and a slit exists between the door and the inner periphery of the aperture, and that it would have been obvious to replace de Paula's pellicle arrangement with Lee's cantilever for optical detection of bending of the cantilever.

However, as discussed during the interview, Lee's cantilever is intended to be used with a transducer mounted thereto for detecting a change in its shape-- there is nothing in Lee to suggest instead arranging the cantilever to be subjected to vibrations for detection by a photodetector. Indeed, there exists no evidence on the record that such use of Lee's cantilever was known, that the results of such use would have been predictable to an ordinarily skilled artisan, or that an ordinarily skilled artisan would have had a reasonable expectation of success in employing Lee's cantilever this way.

Accordingly, insufficient evidence exists that it would have been obvious to an ordinarily skilled artisan to have employed Lee's cantilever in place of dePaula's pellicle arrangement in dePaula's high-sensitivity optical microphone.

Claim 27, the other pending independent claim, is rejected as being unpatentable over U.S. Patent No. 6,474,168, hereinafter Meringdal.

Meringdal discloses a dynamic pressure sensor in which a diaphragm 2 attached to a frame 4 at transition areas 5 is used as a photoacoustical gas sensor.

The Official Action correctly notes that Meringdal's diaphragm 2 is not a door on only one side mounted on structure of a door frame encircling side faces of the door. The Official Action goes on to state that modifying Meringdal's diaphragm 2 to be a door on only one side mounted on structure of a door frame encircling side faces of the door "would be well within the ability of one of ordinary skill in the art and

would lead to no unexpected results". However, as discussed during the interview, the grounds for rejection fails to include any evidence in support of this allegation. Indeed, such a modification would not have been obvious to an ordinarily skilled artisan.

In the response to arguments section of the Official Action, the Examiner appears to take the position that such a modification would have been obvious to an ordinarily skilled artisan in view of the disclosure in Lee. However, as discussed during the interview, Lee's cantilever is intended to be used with a transducer mounted thereto for detecting a change in its shape-- there is nothing in Lee to suggest that the result of modifying Meringdal's diaphragm 2 used as a photoacoustical sensor to instead be a door on only one side mounted on structure of a door frame encircling side faces of the door would have been predictable to an ordinarily skilled artisan, or that an ordinarily skilled artisan would have had a reasonable expectation of success in modifying Meringdal's diaphragm 2 this way.

For at least the above reasons, Claim 27 is allowable over the disclosure in Meringdal. Withdrawal of the rejection of Claim 27 is therefore also respectfully requested.

The dependent claims are allowable at least by virtue of their dependence from allowable independent claims. Thus, a detailed discussion of the additional distinguishing features recited in the dependent claims is not set forth at this time.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful

in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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By: /Peter T. deVore/  
Matthew L. Schneider  
Registration No. 32814

Peter T. deVore  
Registration No. 60361

P.O. Box 1404  
Alexandria, VA 22313-1404  
703 836 6620